

PATENT

1. (Currently amended) A method for automatically assigning a group of agents to a plurality of available schedules, comprising the steps of:
- determining preferences for a plurality of factors for each agent;
 - assigning an order of importance for the plurality of factors for each [employee] agent;
 - determining a ranking for each agent from a highest rank to a lowest rank based on a given criteria;
 - performing the following sub-steps on an iterative basis, from a highest ranked agent to a lowest ranked agent:
 - (a) for each schedule that is available to be assigned to a current agent, performing the following sub-steps:
 - (i) for the current agent, for each factor, determining a difference value between a [plurality of schedules] current schedule and [each] the current agent's preference for that factor;
 - (ii) assigning the difference value for each factor to [an assigned] a bit range within a vector for [each agent] the current agent and the current schedule, wherein the factor having [the] a highest importance is assigned to [the] a highest order bits of the vector and [the] remaining factors are assigned to subsequent orders of bits in [their] an assigned order of importance, wherein the vector represents a numerical value that indicates how well the current schedule fits the current agent's preferences; and
 - [for each agent, calculating an unassigned vector for each schedule not assigned to the agent; and]
 - (b) assigning to the current agent the schedule having the lowest [vector to each agent] numerical value; [and]
- wherein one or more of the steps are performed by one or more electronic processing devices.

2. (Cancelled).

PATENT

3. (Currently Amended) A method for automatically assigning a group of agents to a plurality of available schedules, comprising the steps of:

- determining preferences for a plurality of factors for each agent;
- assigning an order of importance for the plurality of factors for each [employee] agent;
- for each factor, determining a difference value between a plurality of schedules and each agent's preference for that factor;
- assigning the difference value for each factor to an assigned vector for each agent wherein the factor having the highest importance is assigned to the highest order bits of the vector and the remaining factors are assigned to subsequent orders of bits in their assigned order of importance;
- for each agent, calculating an unassigned vector for each schedule [not assigned to the agent] that is available to be assigned to that agent;
- assigning the schedule having the lowest vector to each agent;
- wherein the unassigned vectors are first calculated for a highest ranked agent and the schedule having the lowest vector is assigned to the highest ranked agent, and further including the steps of:
 - (a) determining the lowest vector for the next highest ranked agent,
 - (b) repeating step [a] (a) until each agent's schedule has been compared to every other agent's schedule; and
- wherein one or more of the steps are performed by one or more electronic processing devices.

4. (Original) The method of Claim 3 wherein the agents are ranked according to seniority.

5. (Original) The method of Claim 3 wherein the agents are ranked according to performance.

6. (Original) The method of Claim 3 wherein a schedule may only be assigned from a higher ranked agent to a lower ranked agent if such assignment will

PATENT

decrease the lower ranked agent's vector without increasing the vector of the higher ranked agent.

7. (Original) The method of Claim 1 wherein the plurality of factors is selected from the group of start times, break times, lunch times, days off, end time, lunch length, split shift parameters and hours worked.

8. (Original) The method of Claim 1 wherein the plurality of schedules are preliminarily assigned schedules.

9. (Original) The method of Claim 1 wherein the plurality of schedules are a pool of schedules.

10. (Canceled).

11. (Canceled).

PATENT

12. (Currently Amended) A computer program product for operation on a computer for assigning a group of agents to a plurality of available schedules, comprising:

means for determining preferences for a plurality of factors for each agent;

means for assigning an order of importance for the plurality of factors for each agent;

means, for each factor, for determining a difference value between a preliminarily assigned schedule and each agent's preference for that factor;

means for assigning the difference value for each factor to an assigned vector for each agent wherein the factor having the highest importance is assigned to the highest order bits of the vector and the remaining factors are assigned to subsequent orders of bits in their assigned order of importance;

means, for each agent, for calculating an unassigned vector for each schedule [not assigned to the agent] that is available to be assigned to that agent;

means for assigning the schedule having the lowest vector to each agent; and

wherein the unassigned vectors are first calculated for a highest ranked agent and the schedule having the lowest vector is assigned to the highest ranked agent, and further including:

(a) means for determining the lowest vector for a next highest ranked agent,

(b) means for repeatedly applying said means for determining the lowest vector until each agent's schedule has been compared to every other agent's schedule.

13. (Previously Amended) The product of Claim 12 wherein the agents are ranked according to seniority.

14. (Previously Amended) The product of Claim 12 wherein the agents are ranked according to performance.

15. (Original) The product of Claim 12 wherein a schedule may only be assigned from a higher ranked agent to a lower ranked agent if such assignment will decrease the lower ranked agent's vector without increasing the vector of the higher ranked agent.

PATENT

16. (Currently Amended) The product of Claim [10] 12 wherein the plurality of factors is selected from the group of start times, break times, lunch times, days off, end time, lunch length, split shift parameters and hours worked.

17. (Currently Amended) The product of Claim [10] 12 wherein the plurality of schedules are preliminarily assigned schedules.

18. (Currently Amended) The product of Claim [10] 12 wherein the plurality of schedules are a pool of schedules.

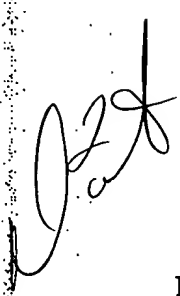
PATENT

19. (New) A method for automatically assigning a group of agents to a plurality of initially assigned schedules, comprising the steps of:
determining preferences for a plurality of factors for each agent;
assigning an order of importance for the plurality of factors for each agent;
determining a ranking for each agent from a highest rank to a lowest rank based on a given criteria;

performing the following sub-steps on an iterative basis, from a highest ranked agent to a lowest ranked agent:

- (a) for the current agent, for each factor, determining a difference value between a currently assigned schedule and the current agent's preference for that factor;
- (b) assigning the difference value for each factor to a bit range within an assigned vector for the current agent and the currently assigned schedule, wherein the factor having a highest importance is assigned to a highest order bits of the vector and remaining factors are assigned to subsequent orders of bits in an assigned order of importance, wherein the vector represents a numerical value that indicates how well the current schedule fits the current agent's preferences;
- (c) for each schedule that is assigned to an agent that is lower in ranking than the current agent, performing the following sub-steps:
- (i) for the current lower-ranked agent, for each factor, determining a difference value between the current lower-ranked agent's schedule and the current agent's preference for that factor;
- (ii) assigning the difference value for each factor to a bit range within a vector for the current lower-ranked agent and the current lower-ranked agent's schedule, wherein the factor having a highest importance is assigned to a highest order bits of the vector and remaining factors are assigned to subsequent orders of bits in an assigned order of importance, wherein the vector represents a numerical value that indicates how well the current lower-ranked agent's schedule fits the current agent's preferences; and

PATENT



(d) if a lower-ranked agent has a schedule with a lower numerical value than the current agent's currently assigned schedule, exchanging the schedules between those agents;

wherein one or more of the steps are performed by one or more electronic processing devices.
